AVERSIVE CONDITIONING WITH THIRAM TO REDUCE MOUNTAIN BEAVER DAMAGE TO DOUGLAS-FIR SEEDLINGS. D.L. Campbell and J. Evans, USDA Animal & Plant Health Inspection Service, Science & Technology, Olympia, WA

Thiram (tetramethylthiuram disulfide, TMTD) has been used extensively in the past as a 10% foliar spray to reduce snowshoe hare (Lepus americanus) damage to forest seedlings. This concentration did not appear effective against mountain beavers (Aplondontia rufia) when applied to planted seedlings. A recent study of aversive conditioning with a 21% active thiram spray with 23% Rhoplex AC-33 adhesive indicated favorable mountain beaver repellency. The trial was conducted by spraying cull Douglas-fir (Pseudotsuga menziesii) seedlings place in mountain beaver burrows for aversive conditioning. Two-year-old Douglas-fir seedlings averaging 44 cm tall were planted outside each burrow in groups of eight (144 per treatment). Some seedlings were sprayed and otheres were not. After 8 months, conditioned mountain beavers had cut 17.4% of thiram-sprayed trees and 16.0% of unsprayed trees. On sites where thiram was not applied, 94.4% of untreated control trees were cut outside untreated burrows. Thiram significantly reduced mountain beaver damage.

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